



Arch Chemicals, Inc.

# MATERIAL SAFETY DATA

FOR ANY EMERGENCY, CALL 24 HOURS/7 DAYS:	1-800-654-6911
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300
FOR ALL MSDS QUESTIONS & REQUESTS, CALL MSDS CONTROL:	1-800-511-MSDS

**PRODUCT NAME: HTH® ALGAEGUARD™ 10**

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

REVISION DATE: 11-29-2001 SUPERCEDES: None  
MSDS NO: 00045-0014 - 61113

MANUFACTURER: Arch Chemicals, Inc. 501 Merritt 7 PO Box 5204 Norwalk, CT 06856-5204

SYNONYMS: None  
CHEMICAL FAMILY: Quaternary ammonium chloride  
FORMULA: Not Applicable/Mixture  
USE DESCRIPTION: Swimming Pool Algaecide  
OSHA HAZARD CLASSIFICATION: Corrosive, eye and skin hazard, lung toxin

## SECTION 2 COMPONENT DATA

### PRODUCT COMPOSITION

CAS or CHEMICAL NAME: Alkyl dimethyl benzyl ammonium chloride  
CAS NUMBER: 68424-85-1  
PERCENTAGE RANGE: 10%  
HAZARDOUS PER 29 CFR 1910.1200: Yes  
EXPOSURE STANDARDS: None established

CAS or CHEMICAL NAME: Water  
CAS NUMBER: 7732-18-5  
PERCENTAGE RANGE: 90%  
HAZARDOUS PER 29 CFR 1910.1200: No  
EXPOSURE STANDARDS: None established

## SECTION 3 PRECAUTIONS FOR SAFE HANDLING AND STORAGE

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH SKIN, EYES, AND CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER.  
STORAGE CONDITIONS: Store in a cool, ventilated, dry area.  
DO NOT STORE AT TEMPERATURES ABOVE: 100 Deg.C (212 Deg.F)  
OTHER: Keep from freezing.  
PRODUCT STABILITY AND COMPATIBILITY  
SHELF LIFE LIMITATIONS: Approximately one year  
INCOMPATIBLE MATERIALS FOR PACKAGING: None known  
INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT: Oxidizers, materials containing free chlorine

## SECTION 4 PHYSICAL DATA

APPEARANCE: Clear blue liquid

MELTING POINT: Not Applicable  
BOILING POINT: 100 Deg.C (212 Deg.F)  
DECOMPOSITION TEMPERATURE: No Data  
SPECIFIC GRAVITY: 0.99  
BULK DENSITY: Not Applicable  
pH: 7-8 @ 10% Concentration  
VAPOR PRESSURE @ 25 DEG.C: No Data  
SOLUBILITY IN WATER: Miscible  
VOLATILES, PERCENT BY VOLUME: 90  
EVAPORATION RATE: No Data  
VAPOR DENSITY: No Data  
MOLECULAR WEIGHT: Mixture/Not Applicable  
ODOR: Amine-like  
COEFFICIENT OF OIL/WATER DISTRIBUTION: No Data

#### SECTION 5 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

##### PERSONAL PROTECTION FOR ROUTINE USE OF PRODUCT:

RESPIRATORY PROTECTION: Respirator protection not normally needed.  
If vapors, mists, or aerosols are generated,  
wear a NIOSH approved respirator.  
VENTILATION: Local exhaust ventilation is recommended if vapors, mists or  
aerosols are generated. Otherwise, use general exhaust  
ventilation.  
SKIN AND EYE PROTECTIVE EQUIPMENT: Wear gloves, boots, apron and a face  
shield with safety glasses. A full  
impermeable suit is recommended if  
exposure is possible to a large  
portion of the body.

##### EQUIPMENT SPECIFICATIONS:

RESPIRATOR TYPE: NIOSH approved air purifying respirator with organic  
vapor cartridges and a HEPA filter  
PROTECTIVE CLOTHING TYPE (This includes: gloves, boots, apron and protective  
suit) : Impervious

#### SECTION 6 FIRE AND EXPLOSION HAZARD INFORMATION

##### FLAMMABILITY DATA:

FLAMMABLE: No  
COMBUSTIBLE: No  
PYROPHORIC: No  
FLASH POINT: None - Method ASTM D-56  
AUTOIGNITION TEMPERATURE: No Data  
FLAMMABLE LIMITS AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE (PERCENT  
VOLUME IN AIR): Not Applicable

NFPA RATINGS: Not Established

##### HMIS RATINGS:

Health: 3  
Flammability: 0  
Reactivity: 1

EXTINGUISHING MEDIA: Not Applicable

##### FIRE FIGHTING TECHNIQUES AND COMMENTS:

Use water to cool containers exposed to fire.

#### SECTION 7 REACTIVITY INFORMATION

CONDITIONS UNDER WHICH THIS PRODUCT MAY BE UNSTABLE  
TEMPERATURES ABOVE: No Data

MECHANICAL SHOCK OR IMPACT: No  
ELECTRICAL (STATIC) DISCHARGE: No  
HAZARDOUS POLYMERIZATION: Will Not Occur  
INCOMPATIBLE MATERIALS: Oxidizers, materials containing free chlorine  
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, and ammonium compounds.

SUMMARY OF REACTIVITY:

OXIDIZER: No  
PYROPHORIC: No  
ORGANIC PEROXIDE: No  
WATER REACTIVE: No

SECTION 8 FIRST AID

EYES: Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Call a physician at once.

SKIN: Immediately flush with water for 15 minutes. Wash the contaminated skin with soap and water. If irritation develops, call a physician. If clothing comes in contact with the product, the clothing should be laundered before re-use.

INGESTION: Immediately drink large quantities of water. DO NOT induce vomiting. Call a physician at once. DO NOT give anything by mouth if the person is unconscious or if having convulsions.

INHALATION: If person experiences nausea, headache or dizziness, person should stop work immediately and move to fresh air until these symptoms disappear. If breathing is difficult, administer oxygen, keep the person warm and at rest. Call a physician. In the event that an individual inhales enough vapor to lose consciousness, person should be moved to fresh air at once and a physician should be called immediately. If breathing has stopped, artificial respiration should be given immediately. In all cases, ensure adequate ventilation and provide respiratory protection before the person returns to work.

SECTION 9 TOXICOLOGY AND HEALTH INFORMATION

ROUTES OF ABSORPTION

Inhalation, Skin, Eye, Ingestion

WARNING STATEMENTS AND WARNING PROPERTIES

HARMFUL IF INHALED.MAY BE HARMFUL IF SWALLOWED. CAUSES BURNS TO EYES, SKIN, DIGESTIVE TRACT AND RESPIRATORY TRACT.

HUMAN DOSE RESPONSE DATA

IRRITATION AND ODOR THRESHOLD: There is no data for irritation or odor threshold.

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH: No IDLH value has been established for this product.

SIGNS, SYMPTOMS, AND EFFECTS OF EXPOSURE:

INHALATION:

ACUTE: Inhalation of this material is irritating to the nose, mouth, throat, and lungs. It may also cause burns to the respiratory tract which can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function. Inhalation of high concentrations may result in permanent lung damage.

CHRONIC: Repeated inhalation exposure may cause impairment of lung

function and permanent lung damage.

EYE:

Severe irritation and/or burns can occur following eye exposure.  
Direct contact may cause impairment of vision and corneal damage.

SKIN:

ACUTE: Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling, and scab formation. Prolonged skin exposure may cause permanent damage.  
CHRONIC: Repeated dermal exposure may cause tissue destruction due to the corrosive nature of this product.

INGESTION:

ACUTE: Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration. Ingestion may cause severe damage to the gastrointestinal tract with the potential to cause perforation.+  
CHRONIC: There are no known or reported effects from chronic exposure. Chronic ingestion of significant amounts of this product is unlikely because of its acute corrosive action.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Asthma and respiratory and cardiovascular disease

INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY:

None known or reported.

ANIMAL TOXICOLOGY:

ACUTE TOXICITY:

Inhalation LC 50 - No data  
Oral LD 50 - Approximately 3-4 g/kg(rat)  
Dermal LD 50 - > 2g/kg (rabbit)  
CAUSES BURNS TO EYES AND SKIN.

ACUTE TARGET ORGAN TOXICITY:

This product may be severely irritating and/or corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and the upper respiratory tract.

CHRONIC TARGET ORGANTOXICITY:

There are no known or reported effects from repeated exposure except those which may be secondary to burns.

DEVELOPMENTAL AND REPRODUCTIVE TOXICITY: There are no known or reported effects on reproductive function or fetal development.

CARCINOGENICITY: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

MUTAGENICITY: This product is not known or reported to be mutagenic.

AQUATIC TOXICITY:

No data for product

SECTION 10 TRANSPORTATION INFORMATION

THIS MATERIAL IS NOT REGULATED AS A DOT HAZARDOUS MATERIAL.

SECTION 11 SPILL AND LEAKAGE PROCEDURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 800-424-9300.

REPORTABLE QUANTITY: None established (Per 40 CFR 302.4)

SPILL MITIGATION PROCEDURES:

Water Release - This material is heavier than water. This material is soluble in water.

Land Spill - Compatible absorbents: Saw dust, sand, clay soil, vermiculite and commercial absorbents.

SPILL RESIDUES:

Dispose of per guidelines under Section 12, WASTE DISPOSAL.

This material may be neutralized for disposal; you are requested to contact at 800-6546-911 before beginning any such operation.

PERSONAL PROTECTION FOR EMERGENCY SPILL AND FIRE-FIGHTING SITUATIONS:

No extra protection required beyond that listed in Section 5. In case of fire use normal fire fighting equipment, including a NIOSH approved self-contained breathing apparatus (SCBA).

SECTION 12 WASTE DISPOSAL

If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

As a nonhazardous liquid waste, it should be disposed of in accordance with local, state and federal regulations by treatment in a wastewater treatment system.

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

SECTION 13 ADDITIONAL REGULATORY STATUS INFORMATION

TOXIC SUBSTANCES CONTROL ACT: This substance is listed on the Toxic Substances Control Act inventory.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT TITLE 3:

HAZARD CATEGORIES, PER 40 CFR 370.2:

HEALTH:

Immediate (Acute)

PHYSICAL:

None

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW, PER 40 CFR 355, APP.A:

EXTREMELY HAZARDOUS SUBSTANCE - THRESHOLD PLANNING QUANTITY:

None Established

SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45:

None Established

SECTION 14 ADDITIONAL INFORMATION

MSDS REVISION STATUS: Revised Sections 1, 5, 6, 9 and 11.

## SECTION 15 MAJOR REFERENCES

References are available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.

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